

REMARKS

Applicants have amended claim 4.

Claims 1-7 have been rejected under 35 USC 102(e) as anticipated by U.S. Patent No. 6,674,178 (Ikegami). Applicants respectfully traverse this rejection.

In the amendment filed August 12, 2005, applicants amended claim 1 to recite applying, after the application of the pressure to the peripheral portion, a pressure to a central portion of the back surface of the semiconductor chip and explained that claim 1 recites two different steps of pressure application, i.e., applying a pressure to the peripheral portion of the back surface of the semiconductor chip and applying a pressure to the central portion of the back surface of the semiconductor chip. Because of this two-step pressure application, the claimed manufacturing method prevents the sealing resin from penetrating into the space between the claimed first and second electrodes. The Examiner admits that Ikegami does not teach or suggest a two-step pressure application and that all Ikegami teaches is an application of a pressure to the peripheral portion and the central portion at the same time. See paragraph 3 of the Action. Applicants agree with the Examiner and note that such a one-step pressure application cannot achieve the prevention of the penetration of a sealing resin between two contacting electrodes, which is accomplished by the claimed method.

Nonetheless, the Examiner contends that the claim 1 does not recite the two-step pressure application. Applicants respectfully disagree. Claim 1 recites “applying, after the application of the pressure to the peripheral portion, a pressure to a central portion of the back surface of the semiconductor chip.” The explicit claim language thus states that after a pressure is applied to the peripheral portion of the back surface of the chip, then another pressure is applied to the central portion of the back surface. The Examiner’s contention that the claimed pressuring process is just one pressure application step reads the word “after” out of the claim and thus is not reasonable.

In response to applicants' argument that Ikegami discloses only one pressure application, the Examiner now contends in the Advisory Action, contrary to his previous position, that Ikegami teaches two different pressure applications, i.e., when vacuum holding collet 24 pushes bump electrode 13 against pad electrode 16, as explained at column 8, lines 38-42, and when the stacking of the bump electrode 13 and the pad electrode 16 are heated, as explained at column 8, line 66 - column 9, line 3. This is not a proper reading of Ikegami. Ikegami states at column 9, lines 1-3, that the heat treatment is performed while "maintaining the pressure application condition of 30 gf per bump electrode of the vacuum holding collet 24." (Emphasis added) Thus, Ikegami's pressure is maintained throughout the initial engagement of the bump electrode 13 and the pad electrode 16 as well as during the heat treatment of the engaged electrode assembly.

Ikegami does not teach or suggest the claimed two-step pressure application. Claim 4 as amended recites the two-step application of a positive pressure just like claim 1. Thus, the rejection of claims 1-7 under 35 USC 102(e) on Ikegami should be withdrawn.

In light of the above, a Notice of Allowance is solicited.

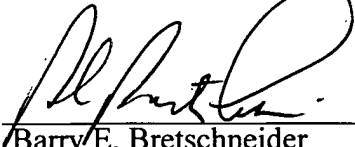
In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition

for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952, referencing Docket No. 606402017800.

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By:

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